

IN THE CLAIMS

Cancel claims 1-14.

Insert new claims 15-22 as follows:

B 1 15. (New) A method for correcting positioning errors in rock drilling occurring in a drilling rig comprising a boom and a rock drill, the boom attached at one end thereof to a carrier and being turnable in relation to it about respective joints, the rock drill being turnably mounted to another end of the boom, the apparatus arranged in a drilling position for drilling a hole in a way that the boom is controlled using control devices of the drilling rig wherein the boom is subjected to various movements until the boom is in a set position, wherein a deviation of the boom's actual position from a calculated theoretical position is measured, and the boom's position is corrected on the basis of the measured deviation, the method comprising the steps of:

(112) ? A) storing, in a memory, a first set of deviations obtained by turning the boom from a reference position to predetermined angularly spaced intervals about a first of the joints, and measuring, for each such interval, a deviation of the boom position from a theoretical position, and

B) using the stored first set of deviations during a subsequent drilling operation as correction values for locating the boom in the theoretical <sup>112 Lab.</sup> positions corresponding to the respective intervals about (the first joint.)

16. (New) The method according to claim 15 wherein step A further comprises storing a second set of deviations obtained independently of the first set of deviations by turning the boom from a reference position to predetermined angularly spaced intervals about a (second of the joints) and measuring, for each such interval, a deviation of the boom position from a theoretical position; step B comprising using the stored second set of deviations during the drilling operation as

correction values for locating the boom in the theoretical positions corresponding to the respective intervals about <sup>the</sup> ~~the~~ second joint.) <sup>LAB</sup>

17. (New) The method according to claim 15 wherein an outer section of the boom is linearly extendable and retractable relative to an inner section thereof, step A further comprising storing another set of deviations obtained independently of the first set of deviations by moving the outer section from a reference position to linearly spaced intervals and measuring, for each linearly spaced interval, a deviation of the boom outer section from a theoretical position; step B comprising using the stored other set of deviations during the drilling operation as correction values to locate the boom in the theoretical positions corresponding to the linearly spaced intervals.

18. (New) The method according to claim 15 wherein deviations occurring at a location between two of the angularly spaced intervals is determined by calculating an approximation based upon the measured deviations at the two angularly spaced intervals.

19. (New) Rock drilling apparatus comprising a carrier, a boom having a first end attached to the carrier and turnable about respective joints in relation to the carrier, a rock drill attached turnable to the other end of the boom, joint sensors indicating the positions of the boom joints, and control devices for controlling the boom for movement to a drilling position for drilling a hole, the apparatus further comprising:

a memory device for storing a first set of deviations obtained by turning the boom from a reference position to predetermined angularly spaced intervals about a first of the joints, and measuring for each such interval a deviation of the boom position from a theoretical position, and

a calculating device operable during a drilling operation for using the stored first set of deviations as correction values for locating the boom in the theoretical positions corresponding to the respective intervals about (the first joint.) LAB

20. (New) The apparatus according to claim 19 wherein the memory device is operable to store a second set of deviations obtained independently of the first set of deviations by turning the boom from a reference position to predetermined angularly spaced intervals about a (second of the joints) and measuring, for each such interval, a deviation of the boom position from a theoretical position; the calculating device being operable to use the stored second set of deviations during the drilling operation as correction values for locating the boom in the theoretical positions corresponding to the respective intervals about (the second joint.) LAB

21. (New) The apparatus according to claim 19 wherein an outer section of the boom is linearly extendable and retractable relative to the inner section thereof, the memory device being operable to store another set of deviations obtained independently of the first set of deviations by moving the outer section from a reference position to linearly spaced intervals and measuring, for each linearly spaced interval, a deviation of the boom outer section from a theoretical position; the calculating device being operable to use the stored other set of deviations during the drilling operation as correction values to locate the boom in the theoretical positions corresponding to the linearly spaced intervals.

22. (New) The apparatus according to claim 19 wherein the axis is parallel to a rotary axis of the rock drill.